

## HD-3500 PRELIMINARY

1.5G or 3Gb/s Transport with Audio and Bi-directional Data over Single Fiber



### SUMMARY

3.0 Gbps Multirate Serial Digital Video Fiber Optic Transceiver, 4 Audio or 2 AES Audio with ability to transcode between AES and Analog, Bi-directional Stereo Audio for intercom with Bi-directional RS232/RS422/RS485, 4 GPIO channels, and Tally. Supports 5 - 2970 Mb/s, SDI, HD-SDI, 3G HD-SDI, DVB ASI, SMPTE 424M, 292M/259M/310M, EQ and Reclocker; 1310nm TX, 1491nm TX and 1551nm RX; Stand-alone & Rack-mountable, wall-mount power supply included. Supports embedded audio. (May require -RM6 & -BLANK) (Includes wall-mount power supply) (Specify ST, LC or FC Connectors)

### FEATURES

- 5M to 3G 1080p Multirate HD-SDI Video version available
- Lower costs 5M to 1.5G 1080i Multirate HD-SDI Video version available
- Audio input supports 2 AES Digital or 4 Analog Audio Channels with transcoding. Analog in, AES out or visa-versa.
- Two Bi-Directional Serial Data Channels, RS-232/422/485
- Two Auxiliary Audio Channels for 4 wire Intercom
- 1 Tally (bidirectional) with contact relay out.
- Supports 4 GPI and 1 Tally/Relay
- Available in Stand-alone Portable configuration with optional Triple Rack Kit (-RMT)
- Available as modular card for the openGear frame

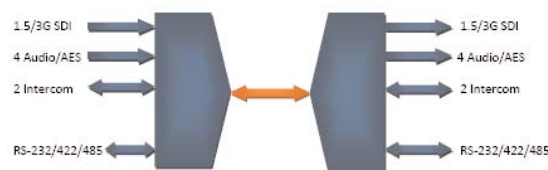
The HD-3500 provides a multi-rate high definition fiber optic transport link for up to 1080p 3G HD-SDI. The system also supports 2 channels of outbound digital AES Audio or 4 analog audio channels with 2 bidirectional auxiliary audio channels for 4 wire intercom. A separate 2 wire to 4 wire intercom bridge may be required. The HD-3500 also supports 2 bidirectional RS-232 or RS 422 data channels as well as 4 GPI and 1 tally.

The HD-3500 is ideal for broadcast facility for moving high definition video as well as analog or digital audio intercom GPI and tally. The data and GPI channels can be used to control equipment in remote locations. The tally relay can be used to control a camera tally lights or the tally relay can be used for other types of control.

The HD-3500 can also be used for remote camera control in the studio or for high definition surveillance cameras outdoors. The system is in use by NASA to broadcast space shuttle launches in high definition video where the data channels are used for pan tilt and zoom or PTZ control.

### SPECIFICATIONS

- Provides an economical solution for the fiber optic transport of 5 Mbps to 3 Gbps HDTV signals.
- Ideal for high definition video and audio transport with supplemental machine control and robotic camera pan-tilt-zoom (PTZ)
- Supports the SMPTE 424M 1080p 3 Gbps HD-SDI standard.
- Supports the SMPTE 292M 1.485 Gbps standard.
- Supports the SMPTE 259M 270 Mbps standard.
- Supports the SMPTE 310M 19.4 Mbps, M2S or DVB-ASI 270Mbps, SMPTE 344M 540 Mbps and SMPTE 305M SDTi rates.



### CONTACT

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## SPECIFICATIONS

**3 Gbps, Multirate, Serial Digital Video Fiber Optic Transmitter****Unit I/Os:**

One coaxial input,  
One re-clocked loop-through  
One fiber optic output  
LED indicators for Data Rate, HD, Lock and Power

**Input:** Type: 1 BNC. Impedance: 75 Ohms. Return Loss: >18dB up to 270MHz. Output: 1 BNC Re-clocked Loopthrough Output. Fiber Output: Type: ST, LC or FC. Wavelength: 1310 Singlemode or Multimode. Power: -12 dBm.

**3 Gbps, Multirate, Serial Digital Video Fiber Optic Receiver****• Unit I/O's:**

One fiber optic input  
Two re-clocked coaxial outputs  
LED indicators for Data Rate, HD, Lock and Power

**Fiber Input:** Type: ST, LC or FC. Wavelength: 1310nm. Sensitivity: -20 dBm. Output: Type: 2 BNC. Return loss: >18dB up to 270MHz.

**AES Audio Specs****Inputs:**

Balanced, AES3 /AES3 id  
Input Impedance ..... 110 Ohms / 75 Ohm(setting), +/-20%, 0.1MHz to 6.0MHz.  
Minimum Input Signal ..... 200mV for 50% of cell period.  
Maximum Input Signal ..... 10 Vpp.

**Outputs:**

Balanced, AES3/AES3 id.  
Output Impedance ..... 110 Ohms/ 75 Ohm(setting),, +/-20%, 0.1MHz to 6.0MHz.  
Output Voltage..... 2.0 to 7.0 Vpp into 110Ohms.  
Rise/Fall Time..... 5 to 30 ns, 30 to 40ns for 75 Ohm (10% to 90%).  
Jitter ..... <20ns.

**Analog Audio Specs****Audio Performance:**

Signal to noise ..... > 90 dB  
Frequency response to 20 Hz to 20 KHz..... < +/- 0.1 dB  
Distortion..... < 0.05 %  
Audio range level adjustable ..... 28, 16, 10 or 4 dBu for F.S.  
Maximum input & output level, 600 Ohm termination ..... 28 dBu  
Audio output impedance, balanced..... 50 Ohms  
Audio input impedance, balanced (selectable) ..... 600 Ohms or High

## CONTACT